

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today
(1) was not written for publication in a law journal and
(2) is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte NAMIKI MORIGA

Appeal No. 96-1507
Application 08/168,185¹

ON BRIEF

Before THOMAS, JERRY SMITH, and BARRETT, Administrative Patent Judges.

THOMAS, Administrative Patent Judge.

DECISION ON APPEAL

¹ Application for patent filed December 17, 1993.

Appeal No. 96-1507
Application 08/168,185

Appellant has appealed to the Board from the examiner's final rejection of claims 1 and 8, which constitute all the claims remaining in the application.

Representative claim 1 is reproduced below:

1. A semiconductor device mounted in a resin sealed container comprising:

a semiconductor element;

a base including a cavity in which said semiconductor element is mounted, said base having a bonding surface;

a cover having a bonding surface and a side surface transverse to the bonding surface of said cover, the bonding surface of said cover being disposed on the bonding surface of said base, thereby defining a closed volume including the cavity;

at least two spaced apart masses of a temporary bonding resin disposed between and contacting the bonding surfaces of said cover and said base and including solid particles having a grain size that determines spacing between the bonding surfaces of said cover and said base; and

a thermosetting resin bonding material covering the side surface of said cover and disposed on the bonding surfaces of said base and said cover, sealing said cover to said base.

The following references are relied on by the examiner:

Schuessler 1979	4,159,221	June 26,
Kovacs et al. (Kovacs) 1991	5,064,968	Nov. 12,

Appeal No. 96-1507
Application 08/168,185

Claims 1 and 8 stand rejected under 35 U.S.C. § 103. As evidence of obviousness, the examiner relies upon Kovacs in view of Schuessler.

Rather than repeat the positions of the appellant and the examiner, reference is made to the briefs and the answer for the respective details thereof.

OPINION

We reverse the stated rejection of claims 1 and 8 under 35 U.S.C. § 103.

The focus of the dispute between the appellant and the examiner resides in the recitations of the last two clauses of independent claim 1 on appeal. Neither the examiner nor appellant discuss the teaching at the bottom of column 4, lines 56-68 of Schuessler that the sealant material of Figures 3 and 6 of Schuessler's invention may be preformed from sheet stock by means of die cutting to yield a gasket-like "preform" of sealant material which is placed on the periphery of the inverted cover and subjected to temperature processing. This appears to be equivalent to appellant's recognized prior art approach depicted in Figure 14 of the disclosed invention. On

the other hand, Kovacs only broadly teaches that the bonding of the disclosed lid to the base in his invention may be utilized with a suitable adhesive at column 5, lines 15-20.

Recognizing that the optional teaching of thermosetting sealants at column 5, lines 29-59 of Schuessler includes fillers and/or silica would have necessarily provided an inherent spacing of solid particles between the bonding surfaces of the cover and the base, claim 1 requires that there be "at least two spaced apart masses" of this type of temporary bonding resin disposed between the contacting bonding surfaces of the cover and the base. The earlier noted preform would be a single mass rather than the required at least two masses. Even if we were to consider that there could be a plurality of separate masses of this temporary bonding material, following the teachings in Schuessler, there would be no spacing between the at least two or innumerable number of separate masses of the temporary resin.

In response to appellant's arguments in the principal brief on appeal that two different or distinct bonding resins are recited, the examiner points out at page 5 of the answer that this is not what is required by the claim. Such is also

recognized and admitted by appellant in the reply brief. The examiner makes mention of the discussion at page 10, lines 4-6 of the specification as filed that the temporary bonding resin "may be" the same thermosetting resin as the final bonding material or it may be another thermosetting material. It is further noted that the thermosetting resin limitation of the independent claim does not necessarily exclude nor require that solid particles of any given grain size be within that resin material in contrast to that which is required in the early recited feature of claim 1 on appeal of the temporary bonding resin.

The examiner misstates at page 5 of the answer that the "temporary bonding resin" is the same as the thermosetting resin since the specification merely teaches that they may be the same. Additionally, the examiner's reasoning continues to conclude that because of this "the combination of the resins is equivalent to a single thermosetting resin with fillers." On this point, we also do not agree with the examiner. We find ourselves in general agreement with the assertion made at the top of page 7 of the principal brief on appeal that even though the functions discussed in the earlier portion of that

Appeal No. 96-1507
Application 08/168,185

same paragraph beginning at the bottom on page 6 of the brief are performed during a process of assembling the claimed packaged device, both resins remain a part of the completed, claimed structure. Although there appears to be ample evidence among the two references relied upon by the examiner of a thermosetting resin of the type set forth at the end of claim 1 on appeal, there are no teachings or suggestions or reasonable inferences that the artisan would have derived from the applied references and, in the absence of any persuasive reasoning advanced by the examiner in the answer, it would not have been obvious to the artisan to have formed the separately recited "at least two spaced apart masses of a temporary bonding resin" as recited in independent claim 1 on appeal on the basis of the evidence provided. Therefore, the rejection of claims 1 and 8 under 35 U.S.C. § 103 must be reversed.

REVERSED

JAMES D. THOMAS

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Appeal No. 96-1507
Application 08/168,185

	Administrative Patent Judge)	
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	JERRY SMITH)	BOARD OF
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	Administrative Patent Judge)	APPEALS AND
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	LEE E. BARRETT)	
	Administrative Patent Judge)	

JDT/cam

Leydig, Voit & Mayer
700 Thirteenth St., N.W.
Suite 300
Washington, DC 20005

Appeal No. 96-1507
Application 08/168,185